Down in the Cinnabar Mines

A Visit to New Almaden in 1865

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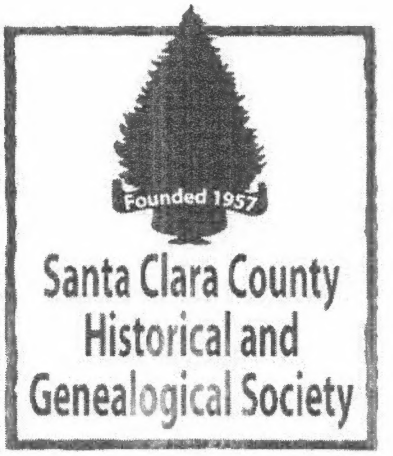

J. Ross Browne

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No event in the history of American enterprise has promoted in a greater degree the extension of civilization than the discovery of the gold placers of California in 1848. Since that period a series of territories equal in the aggregate to a third of the continent has been brought within the humanizing influences of labor and commerce. The discovery of the precious metals in the barren recesses of the mountains has led to the building of cities, the opening of new and important branches of trade, and the settlement and cultivation of rich arable valleys, hitherto occupied by roving bands of Indians. In regular progression one beneficial result has followed another, till nearly the whole of that vast region divided in part by the Rocky Mountains and stretching west to the Pacific Ocean, bordered on the north by the British Possessions and on the south by Mexico, has been redeemed from the sway of the nomadic tribes and rendered available to the uses of civilized man. Already a population approaching a million of hardy, enterprising, and intelligent freemen is spread over the States of California, Oregon, and Nevada, and the Territories of Washington, Idaho, Montana, Utah, Colorado, New Mexico, and Arizona. All the industrial pursuits are represented, from the highest branches of science to the most primitive grades of muscular labor.

Throughout this vast range of country deposits of

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the precious metals have been found in veins of such richness and magnitude as to challenge credulity; and there is scarcely a mineral adapted to purposes of human industry which does not exist within its limits. In contemplating the present condition and probable destiny of this great interoceanic world one is apt to be dazzled by the splendor of the considerations involved, and lose sight of the wonderful system of coincidences by which the designs of Providence are carried into effect. The discovery of gold and silver in California and the adjacent Territories would have been of little avail but for another discovery within our territorial limits of a mineral indispensable in the operations of mining. None of the precious metals can be separated from the baser products of the earth in which they are found imbedded without the use of quicksilver - an article approximating in value more nearly to bullion than any other mineral, and possessing peculiar affinities for which there is no substitute. It is the only known substance which unites readily with gold, silver, tin, lead, zinc, bismuth, and other metals, and gathers them into the form of an amalgam.

Prior to the discovery of the New Almaden mines the principal cinnabar lodes of which we have any knowledge were those of "GuancaVelica" in Peru, "Idria" in Austria, and "Almaden" in Spain. The earliest mention made of quicksilver was by Aristotle and Theophrastus, who called it fluid

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silver. In the time of Pliny the mines of Almaden yielded annually 700,000 pounds of cinnabar. The supply from these sources is limited, and would be wholly inadequate to the demands of our new mineral regions, even if other considerations were not involved. But the use of a product derived from sources over which we have no control, and so essential to our mining interests, would be liable to serious difficulty in cases of national misunderstanding. It is a well-known fact in the history of financial affairs, that, before the opening of the California quicksilver mines, the proprietors and lessees of the old Almaden mine controlled the bullion of the world. The monopoly of quicksilver confers extraordinary powers. In foreign hands it would be a serious drawback, if not an insuperable barrier, to the development of our mineral regions, and might, in the event of war, prove disastrous beyond all other causes to the finances of our country. The discovery of vast and inexhaustible deposits of cinnabar within our own borders almost simultaneously with the rush of emigration to our gold placers and subsequent discoveries of silver, must be regarded as peculiarly fortunate. It relieves us of all apprehensions for the future, and enables us to wield a controlling influence upon the price of quicksilver in the markets of the world.

The subject is one of such unusual importance, comprehending as it does the very basis of our financial

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prosperity, that I am induced to believe the results of my observations during a recent visit to New Almaden will not be uninteresting to the readers of this Magazine. Information bearing so directly upon the supply of the precious metals from our new Territories seems peculiarly appropriate at this time. I examined our great quicksilver mines very thoroughly, and obtained some reliable data in reference to their history and present condition. It is no reflection upon the author of the interesting article on New Almaden which appeared in the June number of Harper for 1863, to say that great changes have taken place both there and throughout our mineral possessions on the Pacific coast since 1857, the date of his visit.

The famous quicksilver mines of New Almaden are situated in Santa Clara County, California, twelve miles from the Pueblo of San Jose and about sixty miles south from San Francisco. The rancho upon which the principal mine was discovered comprehends the valley of Capitancillos. This valley runs nearly north and south, and lies among the mountains of the Coast Range. According to tradition the tribes who resided in it in early days were governed by two chiefs of diminutive stature but great muscular strength, upon whom the Spaniards conferred the affectionate sobriquet of "Capitancillos," or the "Little Captains," and hence the name of the valley.

The revolution of Mexico opened to the restless

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spirits of the mother country a new field for enterprise and adventure. Many persons of distinguished intellectual attainments and great force of character found their way to Upper California as colonists; and their descendants are now prominent among the proudest families of the native population. By the ruder inhabitants they were called the gente de razon - people of reason or intelligence - which is still the distinctive appellation of the superior orders.

These early colonists found in the valley of Capitancillos a cave to which the Indians were in the habit of resorting for a vermilion-colored earth with which to adorn their bodies. This mercurial pigment produced an irritation of the skin. The simple minded aborigines supposed it must be an invention of El Pulli, the Evil Spirit, to punish them for some offense, and they made annual offerings to him in the hope of procuring his forgiveness. Finding him inexorable after the lapse of sufficient time for any ordinary spirit to relent, they washed the paint from their bodies and trusted to other means for salvation.

These tribes have passed away. The Capitancillos and their followers are no longer known save in the traditions of the country. The progress of civilization has nearly swept them from the memory of man.

Up to the year 1824 the vermilion cave was not known as a mine. In that year a French gentleman named Antoine

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Surrol, who resided in the vicinity, conceived the idea of working the ore. Supposing it to contain gold or silver, he sent to the town of San Luis Obispo, some three hundred miles down the coast, for a flask of quicksilver with which to prosecute the work. His experiment, of course, was a failure, and nothing more was heard or thought of the cave until 1845.

Early in that year the Mexican nation, under the Presidency of Paredes, found itself in imminent danger of a war with the United States. A native of Switzerland, John A. Sutter, who had served in the armies of Napoleon, had emigrated to California, and established near the banks of Sacramento a rancho, or farm. In order to ward off the attacks of hostile Indians he had erected a strong defensive work, then and now known as "Sutter's Fort."

Sutter having hospitably received many of the adventurous Americans who crossed the plains at that period, became enamored of their discourse, which breathed the spirit of liberty; and, possibly, fired by the story of Tell and Gessler, inclined to make the fort a rendezvous for such of his new friends as chose to surround him. The Mexican Government was prompt in adopting measures to resist the threatened incursions of the Americans. Don Andres Castillero, a cavalry officer of the Mexican army, was dispatched to California with instructions to negotiate with Sutter for the purchase of his fort. It was deemed of great importance to possess this stronghold; and Castillero was empowered to pay for it, if necessary,

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as much as a hundred thousand dollars. Sutter, with an unselfish devotion to our interests which has never been properly appreciated, rejected the offer.

Castillero, during his sojourn, visited the valley of the "Capitancillos," where he was received with the hospitality due to his official position. The vermilion cave was shown to him as one of the curiosities of the country. Being a person of some culture he discovered, as he thought, something more interesting than demons in this mysterious place, and consulted on the subject with a priest named Real, a man of great shrewdness and learning, who resided at the Mission of Santa Clara. They together resolved to make certain experiments in order to test the nature and character of the rock found in the cave. By means of a gun-barrel and a tub of water they smelted and condensed a small quantity, from which they obtained several globules of quicksilver. Castillero made an informal denouncement of his discovery before the Alcalde of San Jose, and soon after returned to Mexico to give an account of his mission, taking with him specimens of the ore.

The land upon which the discovery was made was claimed by an old ranchero named Berryessa, under a grant for military services. Castillero having exhibited his specimens in the City of Mexico, and made such representations as to induce the Government to grant him facilities for the development of the mine, was about to return to California, when certain of the Anglo-Mexican capitalists procured from him a cession of his claim, and in

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1848 proceeded to work the mine, and take such steps as they deemed necessary to perfect their title. A strict compliance with the Ordinances of 1783, established by the King of Spain and still in force, was required under the Mexican law. It was necessary to the validity of a denouncement that a careful survey should be made, the course and inclination of the vein accurately defined, and a detailed registration made before the proper authorities. That these requirements were not complied with by Castillero appears from the decision of the case by the Supreme Court.

Upper California was ceded to the United States by the treaty of Guadaloupe-Hidalgo, on the 2d of February, 1848. Our Government bound itself to protect the private property of all Mexicans in the territory acquired. The Mexican Government had made many grants of land for the purpose of colonization, and it became necessary to provide for the separation of the public from the private lands. Congress, in 1851, created a Board of Land Commissioners to pass upon the claims presented under the terms of the treaty. The title-papers to the New Almaden mine, derived from Andres Castillero, were recognized as genuine by two members of the Commission, and the title pronounced valid; the third Commissioner, assuming the genuineness of the papers, pronounced them invalid as a title. The case was carried to the United States District Court, where it was found in 1858 by Mr. Stanton, the present Secretary of War,

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who, under instructions from the Attorney-General, took proceedings to prevent the further working of the mine by the parties in possession. It was charged by the Government that the papers upon which the Castillero title was based had been fabricated after the cession of California, and consequently that the title was void. A writ of injunction was granted by the Court, restraining the parties in possession from the further working of the mine. The claimants then secured the professional aid of Reverdy Johnson and J. P. Benjamin, and the testimony and papers in the cause became expanded into several volumes. The arguments occupied weeks, and comprehended every reference illustration, and authority that bore the remotest relation to the subject. Perhaps since the beginning of the Government no cause has been presented for adjudication in the courts involving greater interests, or graver or more complicated questions, embracing as they did the learning of the French jurisconsults, the principles of the laws of nations, the history of all mining countries, ancient and modern; the doctrines of the Common Law of England as to the rights of miners and the tenure of the soil, and the language, literature, and laws of Spain and Mexico. The list of witnesses included the names of nearly all the prominent men who held office in Mexico at and about the dates of the title-papers in question; and it is said a steamship was chartered to convey them from Mexico to San Francisco. Day after day the courtroom was thronged with the beauty, wealth, and fashion of San Francisco.

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For the first time in the history of its judicial proceedings places were assigned to the gentler sex. The forensic discussion was worthy the cause and the scene. The fame of the speakers, the novelty of the questions, the magnitude of the prize at stake, rendered the occasion one of surpassing interest.

The Castillero title was based upon a claim to three thousand varas of ground in every direction from the centre of the mine, in virtue of its denouncement; also to a two-league grant of land from the Mexican Government. Two grants of land had been made in 1842 by Governor Alvarado, of California - one to a person named Justillarios, and the other to Jose Reyes Berryessa; and the mines were claimed by adverse parties under these grants, both of which had been confirmed by the Land Commission. Their boundaries, however, were in dispute, and this was the gist of nearly all the litigation. The Justillarios title was acquired by a man named Fossat, and that part of the "Capitancillos" became known as the Fossat Ranch. The Berryessa grant was acquired by the holders of the Castillero title, and was known as the San Vicente Ranch. There were various intermediate conveyances and complications, of no interest to the general reader.

After much deliberation the United States District Court decided in favor of Castillero's three-thousand-vara grant, but rejected his two-league grant. From this decision the

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Government took an appeal to the Supreme Court of the United States, before which tribunal it was argued in 1863. The Fossat and Berryessa grants had been confirmed, but their boundaries were still in controversy. Government claimed as public domain the range of hills in which the quicksilver mines are located. The Supreme Court decided against the validity of the Castillero title. The efforts of the Government counsel were then principally directed to a determination of the boundaries which would exclude the mines from the Fossat and Berryessa grants, and place them upon public land. An exciting contest ensued; and it was not until April, 1864, that the case was brought to a close by a decision in favor of the claimants under the Fossat grant, allowing them three thousand three hundred and sixty acres of land, inclusive of the mines. By compromise and purchase the present Quicksilver Mining Company, which holds its title under the Fossat grant, has acquired the title to the Berryessa grant, embracing 4438 acres; so that its possession now cover some twelve square miles of land, including all the mines and mining property heretofore in litigation. It has been estimated that more than a third of this extensive domain is traversed by rich veins of cinnabar. The New Almaden mine, which yielded under its former ownership 24,000,000 pounds of quicksilver, is but a single development of this vast mineral deposit. Exclusive of the time it was closed by injunction, the total value of the products derived

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from this mine, and from the Enriqueta and other branches of the same great cinnabar deposit, during the past twelve years, amounts to about fifteen millions of dollars in gold. The permanent improvements on the property of the Company consist of 405 buildings, comprising dwelling-houses, work shops, and stores, erected at a cost of $160,000; six furnaces at the hacienda, costing about $100,000; and a railway from the mines to the furnaces, which, when in complete working order, will probably cost about $20,000. In the employ of the Company, and directly or indirectly dependent upon it, there is at this time a total population of 1943, about five-eighths of whom are Mexicans or native Californians. The remainder consist of Americans, Cornish miners, Italians, Chilenos, French, Germans, Irish, and various other races, representing altogether twenty-eight nationalities. To preserve harmony amidst so many incongruous elements requires no ordinary tact, firmness, and soundness of judgment. With occasional exceptions, however, when aroused by some injurious or exciting influence, they form as peaceable, orderly, and harmless a community as any existing within the limits of California.

In the spring of 1863 Mr. Sam F. Butterworth, then President of the Company, was commissioned by the Directors to visit California and take charge of the mines. Various difficulties and vexed questions still existed as to boundaries; and the long course of litigation, and repeated changes of

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administration in the working of the mines, had resulted in a loose system of operations which required the judicious exercise of a controlling power. Mr. Butterworth had taken a prominent part in the proceedings which had resulted in favor of the Company, and was not only thoroughly familiar with the details of the controversy, but possessed peculiar qualifications for the discharge of the duties with which he was intrusted. It needed a man of great firmness of character, clear and comprehensive intellect, and long experience in financial matters, combined with agreeable manners and a popular reputation, to bring order out of the chaos which existed at New Almaden. Such a selection was that made by the Company, and the result has proved highly satisfactory to all parties interested. Mr. Butterworth, having made all the preliminary arrangements for the permanent working of the mines, visited Arizona during the winter of 1863-'4,*, and returned to New York in February. So well pleased were the Directors with the result of his labors that they offered him the most liberal inducements to return to California. He had held the Presidency since the organization of the Company, but resigned it on grounds of local expediency, accepted the more responsible and onerous position of general agent and factor, and returned to California in July, 1864, under an engagement for five years. As such agent and factor he was empowered to make all purchases for

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* See Harper's Magazine for February, 1865.

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the operation of the mines, to receive and dispose of their products, to have full control over all the employes, and to make all necessary provision for the development and extension of the business. Since he assumed entire control a marked and beneficial change has taken place at the mines. Industry, order, and respect for the constituted authorities prevail. Every man knows his place and performs his duty. The most complicated branches of the business have been systematized; and the whole of this vast concern, in all its ramifications, works with the regularity of a machine. As a consequence, the products of the mine have enhanced to a degree unparalleled in the history of quicksilver mining. No such results have ever before been produced either here or in any other country. The average annual product for eleven years, from July, 1850, to August, 1863 - deducting a period of two years between November, 1858, and January, 1861, during which the mines were closed by injunction - was about 28,000 flasks,* or a little over 2333 flasks per month. The average monthly product for ten months, from September, 1863, to June, 1864, was 2774 flasks; and for six months, from July to December, 1864, 4118 flasks, showing an increase of nearly double under the present management. In a corresponding ratio the foreign and domestic trade in quicksilver has augmented. The exports to foreign countries now average over 3000 flasks per month, viz., to China, 4250; Mexico, 1000; Callao, 500; and

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*A flask contains about 75 pounds, value 65 cents a pound.

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Valparaiso, 300. In California and Nevada about 1000 flasks a month are consumed, of which this Company furnishes 600; the Guadaloupe and New Idria companies furnish about 250 flasks, and 150 flasks are derived from miscellaneous sources. For a few months past the New Almaden mines have averaged 4500 flasks, of which the surplus - over the foreign shipments and domestic consumption, as above stated - is exported to London and the continent of Europe. It may seem strange that the export of this article to China should be so large, compared with the consumption in California and Nevada; but the explanation is simple enough. Quicksilver is extensively used in China for mechanical purposes, and also for the preparation of the vermilion coloring which contributes so much to the bloom of ladies' cheeks all over the world, especially in the highly civilized parts of it. In California and Nevada the modern improvements in the art of mining result in a great saving of material. Much of the quicksilver used performs its functions many times over. The demand, nevertheless, is rapidly increasing, with the development of our new mineral districts.

From San Jose to the Hacienda, a distance of twelve miles, the country is nearly level, and the road is fringed with luxuriant groves of oak, cotton-wood, sycamore, and willow. A more delightful drive is not to be found in California. Two lines of stages make a daily trip each way; so that passengers from San Francisco are enabled to reach the mines within four

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or five hours. Private conveyances are always to be had, especially if the visitor be so fortunate as to enjoy the acquaintance of the general agent and factor, whose kindness and hospitality are proverbial.

Entering the shady groves of the Arroya de los Alamilos, the road winds along the declivities of the canon for a distance of a mile and a half, when a little to the left is seen the capacious mansion known as the Hacienda, or headquarters, its massive walls and broad verandas embosomed in shrubbery. The eye delights to rest upon such a scene of rural comfort, which presents not only the rarest natural beauties but the highest evidences of cultivated taste. Flowers of rich and variegated hues bloom in the gardens, graveled walks traverse the orchards and graperies, and wind through the umbrageous groves that fringe the Alamilos. The music of rippling waters chimes pleasantly with the singing of birds and the happy voices of children. An air of luxury and refinement pervades the premises. All the offices and appointments are in excellent taste, combining simplicity and rural effect with convenience and elegance. One is reminded of the sumptuous and old-fashioned homes in the South - now, alas! desolated by civil war. Here all is peace and prosperity. Carriages are drawn up before the door; spirited horses, saddled for the ladies and their attendants, prance impatiently at their posts; easy-chairs scattered along the veranda are occupied by such of the guests as prefer the fragrant Havana and

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the last newspaper to the excitement of an excursion up the mountains. Happy is he who can spare a few days from his business in the city and partake of the social amenities that prevail at the Hacienda; for here is luxury without pretense, elegance without restraint, and hospitality without affectation, where all may enjoy that rarest privilege - perfect liberty to be happy in their own way.

Some of the most delightful days I have ever spent in California have been in this charming retreat, where, for the time, the busy cares of the world were forgotten and the day-dreams of youth revived. A stroll through the gardens in the early morning, when the sun's rays glittered through the foliage, and the flowers gave forth their most delicate odors; a bath in the sparkling waters of the Alamilos; a view from the grass-covered slopes of the east hill, and a pleasant saunter back by the island and the Chinese Pagoda, were among the enjoyments that ushered in the day. Then came breakfast and cigars and the last evening's paper from San Francisco; and then, by special appointment, the ambulance, with its spirited horses; and the glorious drive up the mountains, over a road scarcely surpassed for scenic effects by the winding turnpikes of Switzerland. On every side are the most cheering evidences of progress and prosperity. Neat cottages, occupied by the workmen and their families, adorn the coziest nooks by the road-side as the visitor approaches the mines; wagons, heavily laden with ores, pass down to the Reduction Works; and the sounds of hammer and anvil and